

# Fish and Wildlife

## Resource Description: Fish

Streams. Fish Creek and its tributaries are used for spawning, rearing, and as a migration corridor for rainbow trout and silver, red, and pink salmon during various phases of their life cycles. Although little is known about the other two tributaries of Flathorn Lake, Homestead Creek and an unnamed tributary, it is presumed that silver salmon juveniles and rainbow trout are present. Angler use occurs only in the lower three miles of Fish Creek and is very light, with most of the use coming from Flathorn Lake residents.

Lakes. Cow, Delyndia, Butterfly, Redshirt and Flathorn lakes comprise the major lakes within the Fish Creek planning area. Rainbow trout and juvenile silver salmon are found in all lakes. Additionally burbot, whitefish, and a few northern pike inhabit Cow and Redshirt lakes. Smaller lakes within the unit that have connecting inlets or outlets to major drainages contain juvenile silver salmon that utilize these waters as rearing areas. Red, silver, and pink, salmon migrate through Flathorn Lake and up Fish Creek and its tributaries to their termination at Redshirt Lake. Presently, all lakes within the unit receive recreational angler usage.

Adjacent land: Little Susitna River corridor. Rainbow trout, whitefish, Dolly Varden, and a relatively small number of Arctic grayling are present in the system. All five species of salmon are found in the Little Susitna River. In recent years angler use has rapidly expanded on the Little Susitna River, which is now one of the largest sport fisheries in upper Cook Inlet.

Adjacent land. Nancy Lake recreation area: The majority of the lakes in this area are part of the Fish Creek drainage. Several are stocked with rainbow trout and silver salmon. Most contain rainbow trout and juvenile silver salmon. Whitefish, northern pike, lake trout, and burbot are also found in some of the lakes. Angler use is fairly stable in this area, and only slight increases are expected on a yearly basis. If additional access is provided to this area (e.g. a road to Redshirt Lake) fishing pressure would increase.

## Resource Evaluation: Fish

The Fish Creek system has good recreational fishing potential when access is developed. Between 2000 and 5000 adult red salmon migrate to Redshirt Lake, producing several hundred thousand red salmon rearing smolt. More than 2000 adult silvers spawn throughout the system. In addition, rainbow trout, grayling, and pink salmon are found in the system, but no information is available on how many.

Streams. Spawning and rearing habitat in all streams within the unit are considered to be critical in maintaining all resident and anadromous fish species. Spawning fish are dependent on silt free spawning gravels, while rearing fish are dependent upon stream bank vegetation for cover, protection from predators, food supply, and moderation of water temperature extremes. Maintenance of undisturbed stream banks along all tributaries is critical to fish habitat.

Enhancement could focus on selective removal of beaver dams and other natural obstructions that presently inhibit migration to spawning and rearing areas by anadromous and resident fish species.

Recreational use of the stream corridors is entirely dependent on access. It is expected that most fishing for anadromous species would take place in the lower three miles of the Fish Creek and Homestead Creek drainages. Increased fishing for resident species would occur in other areas within this drainage where and when road access becomes available.

Lakes. Juvenile as well as adult rainbow trout feed along the shoreline, since the most abundant food organisms are found there. There is little potential for enhancement of resident fish species in lakes with outlets or inlet streams. Continuation of resident species is primarily dependent on the spawning success of adults in connecting streams. Certain landlocked lakes within the unit may be enhanced by stocking them with rainbow trout or silver salmon.

Increased public use of resident lake fish species is totally dependent upon public access to the area. With improved public access it is expected that these lakes would provide substantial angling opportunities.

All lakes in the unit that have connecting inlets or outlets through either the Fish Creek or Little Susitna drainages are used by juvenile silver salmon as rearing areas. This use in some of the lakes is dependent on the fluctuations in water levels and stream blockages caused by beaver dams or debris. Stream flows into and out of these lakes may become intermittent and preclude migration of silver salmon, thus creating a temporary lake fishery for landlocked silvers. As with rainbow trout, juvenile and silver salmon use the shallow shoreline areas of the lake, so that it is important those shoreline areas are not disturbed but remain in their natural condition.

The enhancement potential for silver salmon populations using the lakes within the unit is good. Enhancement could be accomplished by additional stocking of silver salmon fingerlings or in some instances by clearance of stream blockages to allow existing silver populations to use the lateral tributaries, lakes, and marshes.

Angling for adult anadromous fish within the lakes in the planning area may be prohibited since these waters will be used as spawning areas for red salmon. Returning adult salmon that will benefit from lake stocking or stream clearings will be available to anglers only on streams within the unit.

Adjacent lands. The Little Susitna River is scheduled for enhancement of silver, red, and king salmon and is at the top of the priority list of enhancement projects in Cook Inlet for the Department of Fish and Game. Studies have been ongoing, and the stocking of red salmon fingerlings has already begun. The Little Susitna River is expected to become one of the highest public use areas in Cook Inlet in the near future.

## **Resource Description: Wildlife**

Wildlife and their preferred habitats within the Fish Creek unit are similar to those in the rest of southcentral Alaska.

Wetlands. The lakes, streams, and wetlands of the area are especially important habitat for a wide range of wildlife. In the summer, moose feed on underwater vegetation along the margins of lakes, and in the winter they and other large animals such as wolves use the frozen waterways and upland buffers as open corridors; moose often congregate in the riparian zone and other areas where preferred birch and willow browse occurs. Waterfowl use the area principally in the spring and fall in the course of their migrations, and bears are attracted to spawning salmon waters, moose calving areas, and the spring grasses and sedges in wetland areas.

In the spring, summer, and fall moose frequent the area's wetlands for feeding on the abundant willow, birch, aquatic vegetation, and grasses and for calving, particularly in the islands of spruce and birch scattered throughout. Waterfowl, too, feed and nest in the wetlands. Upland birds, such as willow ptarmigan, are often found in large willowed areas and spruce grouse are commonly found in mature stands of spruce. Mink, ermine otter, beaver, and muskrat are also found in the wetlands.

Upland areas. Although moose and bear occur throughout the area, the primary use of this area by game is for spring, summer, and fall habitat. In the spring bears frequent the sedge meadows but will use the uplands for denning and hibernation. The uplands of the Moraine Ridge unit contain greater densities of moose and bear. Wolverine, wolves, coyote, fox and possibly lynx also inhabit the uplands.

Adjacent land. It is estimated that at least a quarter million ducks, geese, swans, and cranes congregate in the Susitna Flats State Game Refuge during the spring and fall migrations. Additionally, upwards of 250 moose are seen in the area. In the spring, however, the number is considerably increased as females use the refuge for calving grounds from the end of May to the end of June.

The Little Susitna River corridor is extremely important to the moose migration as summer and winter range. River edges provide ample browse for moose. Black bear also frequent the area.

In the Susitna corridor the heaviest occurrence of moose is during the winter. The Susitna River serves as one of the most important moose winter habitats and corridors for moose migrating to and from the Beluga, Susitna, and Talkeetna Mountains.

## Resource Evaluation: Wildlife

The most numerous big game species in the area is moose, with black bear second. When access is improved, hunting pressures on those species will increase. Habitat for moose is good along the stream edges and around the wetlands. Removal of mature timber will increase moose habitat and population considerably because of the regeneration of new feed sources.

As a result of the Willow Sub-basin Plan's designation of the Fish Creek unit as agriculture, no big game enhancement projects are recommended. As higher densities of moose already occur in the Moraine Ridge area, habitat enhancement may be needed if forage production and population levels are to be maintained. This will be considered in the preparation of the Moraine Ridge general development plan.

Because small game species rely on existing vegetation types found in Fish Creek, they will decline in the area as land clearing for agricultural purposes progresses. Small game enhancement projects could introduce upland game such as sharp tailed and ruffed grouse if access can be provided for on agricultural lands.

Those furbearers that utilize riparian habitat (mink, ermine, otter, beaver, and muskrat) will be comparatively unaffected by agricultural development because of the publicly owned stream corridors and wetlands. Upland species of furbearers (wolverine, wolf, lynx and to a lesser extent coyote and fox) will be displaced by the development. Trapping of some species will be affected by increased development.

At present, habitat for waterfowl is available in the refuge; however, agricultural crops such as grains could lead to a substantial shift in distribution, increase in waterfowl use, and a consequent increase in crop depredation.